

## REMARKS

Claims 1- 15 and 22 - 34 are pending. Claims 16 – 21 were previously canceled without waiver or prejudice to file in a continuing/divisional application.

The new rejections are traversed for the reasons set forth below; reconsideration is respectfully requested.

### Response to rejection of claims 30, 31, 33 and 34 under § 112

Newly submitted claim 30 recites:

“...said final match is also based on evaluating a degree of coverage of N words presented in said utterance with *each of said one or more corresponding recognized matches having one or more variable word lengths.*”

The Examiner rejected this claim (and claims 31, 33, 34) as failing to comply with the written description requirement, because of the recitation of the phrase “...variable word lengths.” He states that the specification “...does not disclose anything about the lengths of each of the words within a question being variable.”

The Applicant isn't sure what the Examiner is referring to by this comment, or how he is interpreting the claim. Is he saying that the *sentences* don't have variable *word* lengths, or that the words themselves don't have variable *lengths*? Applicant submits that the claim specifically mentions that it is the “recognized matches” that have the variable word lengths. In other words, the matches may have m words, m+1 words, m-1 words, etc. The Examiner appears to be reading it as *words* of variable length. In either event, however, the specification does support both interpretations.

For example paragraph 376 of the Published Publication shows several examples of sentences, which can be compared to a user query (UQ) which states: *How tall is the Eiffel Tower?* - which is a sentence that is six (6) words long. This is compared against other sentences, such as:

*What is the height of the Eiffel Tower?* (eight words)

*How high does the Eiffel Tower stand?* (seven words)

*How high is the Eiffel Tower?* (six words)

Is the Examiner suggesting that these *sentences* are all the *same* length in words? That is clearly not true. Or is he implying that each of the words within the sentences

somehow have the same length? That is also not true. This section alone from the disclosure should surely put the Examiner's concern notion to rest, as the words are clearly different in length. Furthermore paragraph 349 specifically mentions that the potential matches can have a different number of words equal to  $m$ ,  $m-1$ ,  $m+1$ , etc.

Consequently this rejection is traversed as there is ample support in the disclosure for the "variable word length" limitation, irrespective of how the Examiner is interpreting this language.

**Response to Rejections Claims 1 – 3, 6 - 9, 13, 22, 24 – 26, 28, 30 – 31 and 33 – 34 under § 103 based on Crespo et al ('179) taken with Braden Harder et al. ('822)**

**Claim 1**

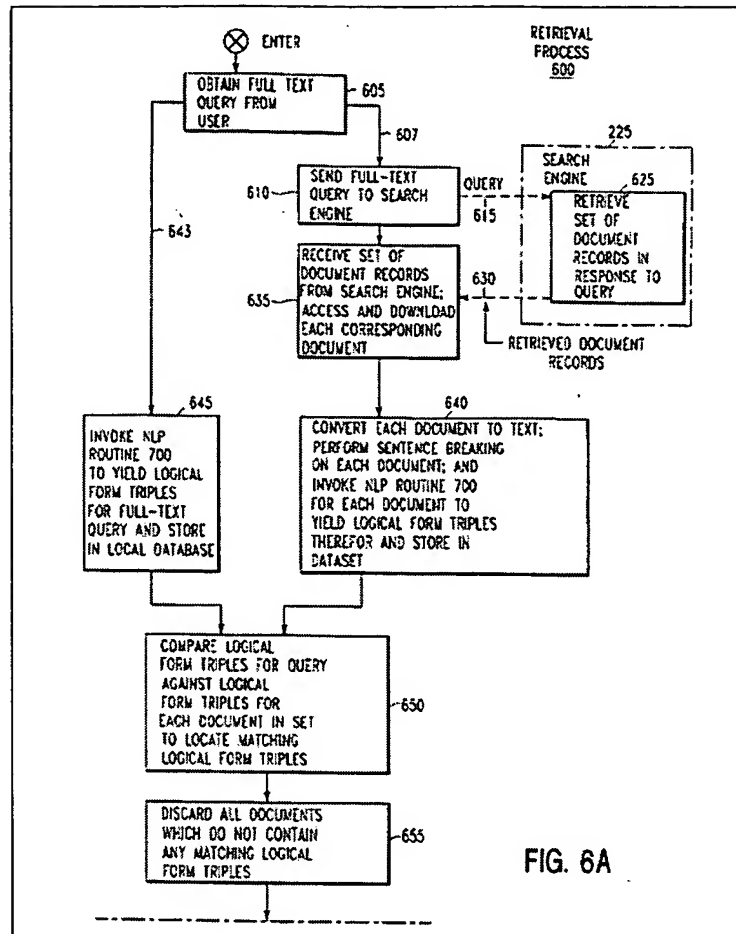
On page 14 the Examiner now apparently concedes that the Crespo et al. reference only uses statistical processing in connection with the continuous speech recognition (CSR) component 120. Now the Examiner suggests nevertheless that Braden-Harder "...applies statistical processing to natural language information retrieval" and thus supplements the Crespo et al. teaching.

The Examiner's analysis is conclusory and fails to provide any substantive facts or evidence to support the conclusion he reaches. To begin with, the Examiner fails to provide even any hint or suggestion on why a person skilled in the art would incorporate such teaching from Braden-Harder (to the extent it can even be found) into Crespo et al. In this respect the Examiner treats the references effectively as if they were disclosing components of a Lego® set, so that the respective components can be interchanged at will between the two architectures, and with no apparent consideration of the underlying operations or constraints associated with each.

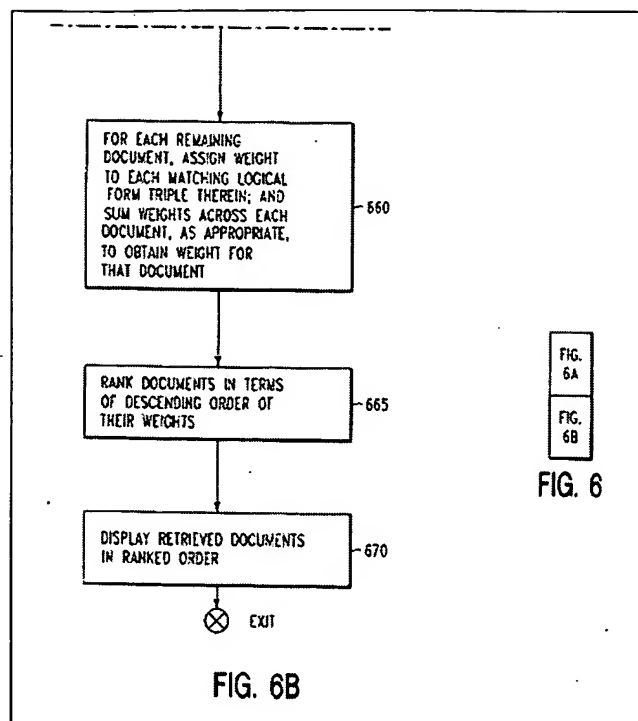
In essence, the original rejection based on Crespo et al. taken with a small supplement from Braden-Harder has now, for all practical purposes, morphed into a rejection consisting mostly of the Braden-Harder system taken with selected pieces of Crespo et al. The Examiner mixes and matches so many disparate components that it is impossible to discern what is the starting point for the analysis.

But as to the specifics, here is part of the system from Braden-Harder that the

Examiner now foists upon the Crespo et al. embodiment:



This is just the first part of the “statistical processing” of Braden-Harder; the rest is shown in FIG. 6B:



The Examiner cavalierly suggests that it would be obvious to add all of the above components/functionality into Crespo et al. But the suggestion (even if it were possible) raises more questions than answers. Where is there a search engine in Crespo et al. as shown in box 610? Or is the Examiner now suggesting that it would be obvious to add *that* as well to the reference, again, without any foundation? Furthermore, where/what are the “documents” retrieved at 625, and where are they stored in Crespo et al.? When are the documents in Crespo et al. going to be converted to text as shown in step 640 as part of the speech recognition process to render a timely result?

All of these additional complexities raise the more germane question of what purpose it would serve to add the alleged statistical processing into Crespo et al.? The latter is primarily (if not exclusively) directed to *speech recognition*: see col. 10, ll. 51+:

“...A reduction in the amount of computations required to perform the search in continuous speech recognition is achieved by incorporating semantic information into the recognizer...”

First of all, this passage again suggests that any natural language statistical processing techniques taught by Braden-Harder are far removed from the scope and interest of the Crespo et al. architecture, which is to say, speech recognition processing.

Moreover, the Examiner's proffered suggestion of modifying the reference to include Braden-Harder type operations is completely contrary to the stated objectives of the reference: reducing computations. The Crespo et al. reference thus in fact specifically teaches away from increasing the number of speech related computations such as by incorporating the Braden-Harder architecture, demonstrating that the proffered combination is not obvious. See MPEP 2142.02. In this respect the Examiner makes no offer of proof on quantifying the advantage offered by Braden-Harder, and measuring it against the cost associated therewith. Again the Applicant cautions against the facile logic of simply suggesting that the references all basically have interchangeable parts.

The Examiner's proposal of including further speech related computations thus raises substantial questions of whether the reference would be able to function for its intended purpose. This kind of modification is not permitted to show obviousness under MPEP 2143.01. Accordingly Applicant requests reconsideration of the rejections made in the Final Office Action.

Finally, and equally of importance, the Examiner's response to address the amendment made to the claim, in which it was noted that "... semantic decoding is performed on entire word sentences," further illustrates the continued morphing of the rejection. In the prior Office Action (page 3), the Examiner insisted that the semantic decoding was done in the Crespo et al. reference within NLU 130. Now in the Final Office Action the Examiner switches gears, and instead points out (on page 6) that he thinks that Braden Harder et al. shows this type of decoding, and that is somehow sufficient. But the change in position again begs the question of which reference the Examiner is really relying upon as the primary reference. The result is a mishmash of components with no logical relationship.

Applicant submits that the Examiner is merely picking out excerpts from the references without any rhyme or reason and assembling some apparatus of his own using hindsight, results-oriented thinking. There is absolutely nothing in either reference that would lead a person skilled in the art to drastically and dramatically alter the fundamental architecture (and thus increase the number of speech recognition operations) in Crespo et al. by using more semantic decoding operations, or any alleged statistical processing, from Braden Harder et al.

Dependent claims 2 – 3, 6 – 9, 13, 33, 34

For purposes of simplifying the present discussion, the explanation of the patentability of claims 2 – 3, 6 – 9, 13, 33, 34 is incorporated by reference from the prior Amendment and is thus not repeated herein.

Claim 22, 24 – 26, 28, 30 – 31

Please see discussion above for claim 1 and its dependents.

**Response to Rejections of Other Claims - 4 – 5, 10 - 12, 14, 15, 23, 27, 29, 32 under under § 103**

The rejections of these claims are addressed in the prior Amendment incorporated by reference herein. Since they depend from claims 1 and 22 they should be allowable for the reasons noted above and in the prior response.

Conclusion

The rejections are addressed specifically above; the record does not support a determination that the claims would have been obvious, so reconsideration is requested.

Should the Examiner wish to discuss anything related to this case in person, feel free to contact the undersigned at any convenient time.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "J. Nicholas Gross". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

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